

DECLASSIFIED BY AF/HOH  
IAW E.O. 12958 (AMENDED)  
DATE: 20080718  
APPROVED FOR  
PUBLIC RELEASE

K717.0413-113  
Aug 69  
cy 2

# PROJECT CHECO SOUTHEAST ASIA REPORT

DECLASSIFIED BY AF/HOH  
IAW E.O. 12958 (AMENDED)  
DATE: 20080718  
APPROVED FOR  
PUBLIC RELEASE

**SPECIAL HANDLING REQUIRED**  
**NOT RELEASABLE TO FOREIGN NATIONALS**  
The information contained in this document  
will not be disclosed to foreign nationals  
or their representatives

**GROUP-1**  
Excluded from automatic downgrading  
and declassification.

K 717.0413-62  
c. 2

20080910314

(2)  
JHO-S-69-617

**REPORT DOCUMENTATION PAGE**

*Form Approved  
OMB No. 0704-0188*

The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

**PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE (DD-MM-YYYY)		2. REPORT TYPE		3. DATES COVERED (From - To)	
4. TITLE AND SUBTITLE				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
				5d. PROJECT NUMBER	
6. AUTHOR(S)				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
				8. PERFORMING ORGANIZATION REPORT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Department of the Air Force Headquarters Pacific Air Forces, CHECO Division Hickam AFB, HI				10. SPONSOR/MONITOR'S ACRONYM(S)	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
				12. DISTRIBUTION/AVAILABILITY STATEMENT A -- Approved for Public Release	
13. SUPPLEMENTARY NOTES					
14. ABSTRACT Project CHECO was established in 1962 to document and analyze air operations in Southeast Asia. Over the years the meaning of the acronym changed several times to reflect the escalation of operations: Current Historical Evaluation of Counterinsurgency Operations, Contemporary Historical Evaluation of Combat Operations and Contemporary Historical Examination of Current Operations. Project CHECO and other U. S. Air Force Historical study programs provided the Air Force with timely and lasting corporate insights into operational, conceptual and doctrinal lessons from the war in SEA.					
15. SUBJECT TERMS CHECO reports, Vietnam War, War in Southeast Asia, Vietnam War- Aerial Operations, American					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (Include area code)

[REDACTED]

**PROJECT**  
**C**ontemporary  
**H**istorical  
**E**xamination of  
**C**urrent  
**O**perations  
**REPORT**

# TACC FRAGGING PROCEDURES

15 AUGUST 1969

**HQ PACAF**

**Directorate, Tactical Evaluation  
CHECO Division**

**SPECIAL HANDLING REQUIRED  
NOT RELEASABLE TO  
FOREIGN NATIONALS**

The information contained in  
this document will not be  
disclosed to foreign nationals  
or their representatives.

**Prepared by:**

**CAPTAIN RUSSELL W. MANK**

**Project CHECO 7th AF, DOAC**

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS PACIFIC AIR FORCES  
APO SAN FRANCISCO 96553



REPLY TO  
ATTN OF DOTEK

9 FEB 1970

SUBJECT Change to Project CHECO Report, "TACC Fragging Procedures"

TO All Holders of Subject Report

✓ It is requested that all holders of subject report (S), 15 August 1969, DOTEK-69-51, make the following changes:

<u>Page</u>	<u>Paragraph</u>	<u>Line</u>	<u>Action to be Taken</u>
x	2	6 through 10	Delete.
33 thru 44	(APPENDIX I)		Remove and destroy.

FOR THE COMMANDER IN CHIEF

  
WARREN H. PETERSON, Colonel, USAF  
Chief, CHECO Division  
Directorate, Tactical Evaluation  
DCS/Operations

# UNCLASSIFIED

## PROJECT CHECO REPORTS

The counterinsurgency and unconventional warfare environment of Southeast Asia has resulted in the employment of USAF airpower to meet a multitude of requirements. The varied applications of airpower have involved the full spectrum of USAF aerospace vehicles, support equipment, and manpower. As a result, there has been an accumulation of operational data and experiences that, as a priority, must be collected, documented, and analyzed as to current and future impact upon USAF policies, concepts, and doctrine.

Fortunately, the value of collecting and documenting our SEA experiences was recognized at an early date. In 1962, Hq USAF directed CINCPACAF to establish an activity that would be primarily responsive to Air Staff requirements and direction, and would provide timely and analytical studies of USAF combat operations in SEA.

Project CHECO, an acronym for Contemporary Historical Examination of Current Operations, was established to meet this Air Staff requirement. Managed by Hq PACAF, with elements at Hq 7AF and 7AF/13AF, Project CHECO provides a scholarly, "on-going" historical examination, documentation, and reporting on USAF policies, concepts, and doctrine in PACOM. This CHECO report is part of the overall documentation and examination which is being accomplished. Along with the other CHECO publications, this is an authentic source for an assessment of the effectiveness of USAF airpower in PACOM.



MILTON B. ADAMS, Major General, USAF  
Chief of Staff

# UNCLASSIFIED

~~SECRET~~

DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS PACIFIC AIR FORCES  
APO SAN FRANCISCO 96553



REPLY TO  
ATTN OF

DOTEC

15 August 1969

SUBJECT

Project CHECO Report, "TACC Fragging Procedures" (U)

TO

SEE DISTRIBUTION PAGE

1. Attached is a SECRET NOFORN document. It shall be transported, stored, safeguarded, and accounted for in accordance with applicable security directives. SPECIAL HANDLING REQUIRED, NOT RELEASABLE TO FOREIGN NATIONALS. The information contained in this document will not be disclosed to foreign nationals or their representatives. Retain or destroy in accordance with AFR 205-1. Do not return.

2. This letter does not contain classified information and may be declassified if attachment is removed from it.

FOR THE COMMANDER IN CHIEF

  
WARREN H. PETERSON, Colonel, USAF  
Chief, CHECO Division  
Directorate, Tactical Evaluation  
DCS/Operations

1 Atch  
Proj CHECO Rprt (S/NF),  
15 Aug 69

~~SECRET~~

# UNCLASSIFIED

## DISTRIBUTION LIST

### 1. SECRETARY OF THE AIR FORCE

- a. SAFAA . . . . . 1
- b. SAFLL . . . . . 1
- c. SAFOI . . . . . 2

### 2. HEADQUARTERS USAF

- a. AFBSA . . . . . 1
- b. AFCCS
  - (1) AFCCSSA . . . . . 1
  - (2) AFCVC . . . . . 1
  - (3) AFCAV . . . . . 1
  - (4) AFCHO . . . . . 2
- c. AFCSA
  - (1) AFCSAG . . . . . 1
  - (2) AFCSAMI . . . . . 1
- d. AFGOA . . . . . 2
- e. AFIGO
  - (1) AFISI . . . . . 3
  - (2) AFISP . . . . . 1
- f. AFMSG . . . . . 1
- g. AFNIN
  - (1) AFNIE . . . . . 1
  - (2) AFNINA . . . . . 1
  - (3) AFNINCC . . . . . 1
  - (4) AFNINED . . . . . 4
- h. AFAAC . . . . . 1
  - (1) AFAMAI . . . . . 1
- i. AFODC . . . . . 1
  - (1) AFOAP . . . . . 1
  - (2) AFOAPS . . . . . 1
  - (3) AFOCC . . . . . 1

- (4) AFOCE . . . . . 1
- (5) AFOMO . . . . . 1

### j. AFPDC

- (1) AFPDPSS . . . . . 1
- (2) AFPMDG . . . . . 1
- (3) AFPDW . . . . . 1

### k. AFRDC

- (1) AFRDD . . . . . 1
- (2) AFRDQ . . . . . 1
- (3) AFRDR . . . . . 1
- (4) AFRDF . . . . . 1

### l. AFSDC

- (1) AFSLP . . . . . 1
- (2) AFSME . . . . . 1
- (3) AFSMS . . . . . 1
- (4) AFSPD . . . . . 1
- (5) AFSSS . . . . . 1
- (6) AFSTP . . . . . 1

### m. AFTAC

- . . . . . 1

### n. AFXDC

- (1) AFXDO . . . . . 1
- (2) AFXDOC . . . . . 1
- (3) AFXDOD . . . . . 1
- (4) AFXDOL . . . . . 1
- (5) AFXOP . . . . . 1
- (6) AFXOSL . . . . . 1
- (7) AFXOSN . . . . . 1
- (8) AFXOSO . . . . . 1
- (9) AFXOSS . . . . . 1
- (10) AFXOSV . . . . . 1
- (11) AFXOTR . . . . . 1
- (12) AFXOTW . . . . . 1
- (13) AFXOTZ . . . . . 1
- (14) AFXOXY . . . . . 1
- (15) AFXPD . . . . . 6
- (a) AFXPPGS . . . . . 3

# UNCLASSIFIED

## 3. MAJOR COMMANDS

### a. TAC

- (1) HEADQUARTERS
  - (a) DO . . . . . 1
  - (b) DPL . . . . . 2
  - (c) DOCC . . . . . 1
  - (d) DORQ . . . . . 1
  - (e) DIO . . . . . 1
- (2) AIR FORCES
  - (a) 12AF
    - 1. DORF . . . . . 1
    - 2. DI . . . . . 1
  - (b) 19AF(DI) . . . . . 1
  - (c) USAFSOF(DO) . . . . . 1
- (3) WINGS
  - (a) 1SOW(DO) . . . . . 1
  - (b) 4TFW(DO) . . . . . 1
  - (c) 23TFW(DOI) . . . . . 1
  - (d) 27TFW(DOI) . . . . . 1
  - (e) 33TFW(DOI) . . . . . 1
  - (f) 64TFW(DO) . . . . . 1
  - (g) 67TRW(C) . . . . . 1
  - (h) 75TRW(DO) . . . . . 1
  - (i) 316TAW(DOP) . . . . . 1
  - (j) 317TAW(EX) . . . . . 1
  - (k) 363TRW(DOC) . . . . . 1
  - (l) 464TAW(DO) . . . . . 1
  - (m) 474TFW(TFOX) . . . . . 1
  - (n) 479TFW(DOF) . . . . . 1
  - (o) 516TAW(DOPL) . . . . . 1
  - (p) 441OCCTW(DOTR) . . . . . 1
  - (q) 451OCCTW(DO16-I) . . . . . 1
  - (r) 4554CCTW(DOI) . . . . . 1
- (4) TAC CENTERS, SCHOOLS
  - (a) USAFTAWC(DA) . . . . . 2
  - (b) USAFTARC(DID) . . . . . 2
  - (c) USAFTALC(DCRL) . . . . . 1
  - (d) USAFTFWC(CRCD) . . . . . 1

- (e) USAFSOC(DO) . . . . . 1
- (f) USAFAGOS(DAB-C) . . . . . 1

### b. SAC

- (1) HEADQUARTERS
  - (a) DOPL . . . . . 1
  - (b) DPLF . . . . . 1
  - (c) DM . . . . . 1
  - (d) DI . . . . . 1
  - (e) OA . . . . . 1
  - (f) HI . . . . . 1
- (2) AIR FORCES
  - (a) 2AF(DICS) . . . . . 1
  - (b) 15AF(DOA) . . . . . 1
- (3) AIR DIVISIONS
  - (a) 3AD(DO) . . . . . 3

### c. MAC

- (1) HEADQUARTERS
  - (a) MAOID . . . . . 1
  - (b) MAOCO . . . . . 1
  - (c) MACHO . . . . . 1
  - (d) MACOA . . . . . 1
- (2) AIR FORCES
  - (a) 21AF(OCXI) . . . . . 1
  - (b) 22AF(OCXI) . . . . . 1
- (3) WINGS
  - (a) 61MAWg(OIN) . . . . . 1
  - (b) 62MAWg(OCXP) . . . . . 1
  - (c) 436MAWg(OXCX) . . . . . 1
  - (d) 437MAWg(OCXI) . . . . . 1
  - (e) 438MAWg(OCXC) . . . . . 1
- (4) MAC SERVICES
  - (a) AWS(AWXW) . . . . . 1

# UNCLASSIFIED

<p>(b) ARRS (ARXLR) . . . . . 1</p> <p>(c) ACGS (AGOV) . . . . . 1</p> <p>(d) AAVS (AVODOD) . . . . . 1</p> <p>d. ADC</p> <p>(1) HEADQUARTERS</p> <p style="padding-left: 20px;">(a) ADODC . . . . . 1</p> <p style="padding-left: 20px;">(b) ADOOP . . . . . 1</p> <p style="padding-left: 20px;">(c) ADLCC . . . . . 1</p> <p>(2) AIR FORCES</p> <p style="padding-left: 20px;">(a) AF ICELAND (FICAS) . . . 2</p> <p>(3) AIR DIVISIONS</p> <p style="padding-left: 20px;">(a) 25AD (ODC) . . . . . 2</p> <p style="padding-left: 20px;">(b) 29AD (ODC) . . . . . 1</p> <p style="padding-left: 20px;">(c) 33AD (OIN) . . . . . 1</p> <p style="padding-left: 20px;">(d) 35AD (CCR) . . . . . 1</p> <p style="padding-left: 20px;">(e) 37AD (ODC) . . . . . 1</p> <p>e. ATC</p> <p>(1) HEADQUARTERS</p> <p style="padding-left: 20px;">(a) ATXDC . . . . . 1</p> <p>f. AFLC</p> <p>(1) HEADQUARTERS</p> <p style="padding-left: 20px;">(a) MCVSS . . . . . 1</p> <p style="padding-left: 20px;">(b) MCOO . . . . . 1</p> <p>g. AFSC</p> <p>(1) HEADQUARTERS</p> <p style="padding-left: 20px;">(a) SCLAP . . . . . 3</p> <p style="padding-left: 20px;">(b) SCS-6 . . . . . 1</p> <p style="padding-left: 20px;">(c) SCGCH . . . . . 2</p> <p style="padding-left: 20px;">(d) SCTPL . . . . . 1</p> <p style="padding-left: 20px;">(e) ASD/ASJT . . . . . 1</p> <p style="padding-left: 20px;">(f) ESD/ESO . . . . . 1</p> <p style="padding-left: 20px;">(g) RADC/EMOEL . . . . . 2</p> <p style="padding-left: 20px;">(h) ADTC/ADGT . . . . . 1</p> <p>h. USAFSS</p> <p>(1) HEADQUARTERS</p> <p style="padding-left: 20px;">(a) ODC . . . . . 1</p> <p style="padding-left: 20px;">(b) CHO . . . . . 1</p>	<p>(2) SUBORDINATE UNITS</p> <p style="padding-left: 20px;">(a) Eur Scty Rgn (OPD-P) . . . 1</p> <p style="padding-left: 20px;">(b) 6940 Scty Wg (OOD) . . . . 1</p> <p>i. AAC</p> <p>(1) HEADQUARTERS</p> <p style="padding-left: 20px;">(a) ALDOC-A . . . . . 2</p> <p>j. USAFSO</p> <p>(1) HEADQUARTERS</p> <p style="padding-left: 20px;">(a) COH . . . . . 1</p> <p>k. PACAF</p> <p>(1) HEADQUARTERS</p> <p style="padding-left: 20px;">(a) DP . . . . . 1</p> <p style="padding-left: 20px;">(b) DI . . . . . 1</p> <p style="padding-left: 20px;">(c) DPL . . . . . 4</p> <p style="padding-left: 20px;">(d) CSH . . . . . 1</p> <p style="padding-left: 20px;">(e) DOTECH . . . . . 5</p> <p style="padding-left: 20px;">(f) DE . . . . . 1</p> <p style="padding-left: 20px;">(g) DM . . . . . 1</p> <p style="padding-left: 20px;">(h) DOTECH . . . . . 1</p> <p>(2) AIR FORCES</p> <p style="padding-left: 20px;">(a) 5AF (DOPP) . . . . . 1</p> <p style="padding-left: 40px;">1. Det 8, ASD (DOASD) . . . 1</p> <p style="padding-left: 20px;">(b) 7AF</p> <p style="padding-left: 40px;">1. DO . . . . . 1</p> <p style="padding-left: 40px;">2. DIXA . . . . . 1</p> <p style="padding-left: 40px;">3. DPL . . . . . 1</p> <p style="padding-left: 40px;">4. TACC . . . . . 1</p> <p style="padding-left: 40px;">5. DOAC . . . . . 2</p> <p style="padding-left: 20px;">(c) 13AF</p> <p style="padding-left: 40px;">1. CSH . . . . . 1</p> <p style="padding-left: 40px;">2. DPL . . . . . 1</p> <p style="padding-left: 20px;">(d) 7AF/13AF (CHECO) . . . . . 1</p> <p>(3) AIR DIVISIONS</p> <p style="padding-left: 20px;">(a) 313AD (DOI) . . . . . 1</p> <p style="padding-left: 20px;">(b) 314AD (DOP) . . . . . 2</p>
--	--

# UNCLASSIFIED

- (c) 327AD
  - 1. DO . . . . . 1
  - 2. DI . . . . . 1
- (d) 834AD(DO) . . . . . 2

- (h) 7101ABW(DCO-CP) . . . 1
- (i) 7149TFW(DCOI) . . . . 1

## 4. SEPARATE OPERATING AGENCIES

- (4) WINGS
  - (a) 8TFW(DCOA) . . . . . 1
  - (b) 12TFW(DCOI) . . . . . 1
  - (c) 35TFW(DCOI) . . . . . 1
  - (d) 37TFW(DCOI) . . . . . 1
  - (e) 56SOW(DXI) . . . . . 1
  - (f) 347TFW(DCOOT) . . . . . 1
  - (g) 355TFW(DCOC) . . . . . 1
  - (h) 366TFW(DCO) . . . . . 1
  - (i) 388TFW(DCO) . . . . . 1
  - (j) 405FW(DCOA) . . . . . 1
  - (k) 432TRW(DCOI) . . . . . 1
  - (l) 460TRW(DCOI) . . . . . 1
  - (m) 475TFW(DCO) . . . . . 1
  - (n) 633SOW(DCOI) . . . . . 1
  - (o) 1st Test Sq(A) . . . . . 1

- a. ACIC(ACOMC) . . . . . 2
- b. ARPC(RPCAS-22) . . . . . 2
- c. AFRES(AFRXPL) . . . . . 2
- d. USAFA
  - (1) CMT . . . . . 1
  - (2) DFH . . . . . 1
- e. AU
  - (1) ACSC-SA . . . . . 1
  - (2) AUL(SE)-69-108 . . . 2
  - (3) ASI(ASD-1) . . . . . 1
  - (4) ASI(ASHAF-A) . . . . . 2

- (5) OTHER UNITS
  - (a) Task Force Alpha(DXI) . 1
  - (b) 504TASG(DO) . . . . . 1

## m. USAFE

- (1) HEADQUARTERS
  - (a) ODC/OA . . . . . 1
  - (b) ODC/OTA . . . . . 1
  - (c) OOT . . . . . 1
  - (d) XDC . . . . . 1

- (2) AIR FORCES
  - (a) 3AF(ODC) . . . . . 2
  - (b) 16AF(ODC) . . . . . 2
  - (c) 17AF
    - 1. ODC . . . . . 1
    - 2. OID . . . . . 1

- (3) WINGS
  - (a) 20TFW(DCOI) . . . . . 1
  - (b) 36TFW(DCOID) . . . . . 1
  - (c) 50TFW(DCO) . . . . . 1
  - (d) 66TRW(DCOIN-T) . . . . . 1
  - (e) 81TFW(DCOI) . . . . . 1
  - (f) 401TFW(DCOI) . . . . . 1
  - (g) 513TAW(OID) . . . . . 1

# UNCLASSIFIED

## 5. MILITARY DEPARTMENTS, UNIFIED AND SPECIFIED COMMANDS, AND JOINT STAFFS

a.	COMUSJAPAN. . . . .	1
b.	CINCPAC . . . . .	1
c.	COMUSKOREA. . . . .	1
d.	COMUSMACTHAI. . . . .	1
e.	COMUSMACV . . . . .	1
f.	COMUSTDC. . . . .	1
g.	USCINCEUR . . . . .	1
h.	USCINCSO. . . . .	1
i.	CINCLANT. . . . .	1
j.	CHIEF, NAVAL OPERATIONS . . . . .	1
k.	COMMANDANT, MARINE CORPS. . . . .	1
l.	CINCONAD. . . . .	1
m.	DEPARTMENT OF THE ARMY. . . . .	1
n.	JOINT CHIEFS OF STAFF . . . . .	1
o.	JSTPS . . . . .	1
p.	SECRETARY OF DEFENSE (OASD/SA). . . . .	1
q.	USCINCEAFSA. . . . .	1
r.	CINCSTRIKE. . . . .	1
s.	CINCAL. . . . .	1
t.	MAAG-China/AF Section (MGAF-0). . . . .	1
u.	Hq Allied Forces Northern Europe (U.S. Documents Office). . . . .	1

## 6. SCHOOLS

a.	Senior USAF Representative, National War College. . . . .	1
b.	Senior USAF Representative, Armed Forces Staff College. . . . .	1
c.	Senior USAF Rep, Industrial College of the Armed Forces . . . . .	1
d.	Senior USAF Representative, Naval Amphibious School . . . . .	1
e.	Senior USAF Rep, US Marine Corps Education Center . . . . .	1
f.	Senior USAF Representative, US Naval War College. . . . .	1
g.	Senior USAF Representative, US Army War College . . . . .	1
h.	Senior USAF Rep, US Army C&G Staff College. . . . .	1
i.	Senior USAF Representative, US Army Infantry School . . . . .	1
j.	Senior USAF Rep, US Army JFK Center for Special Warfare . . . . .	1
k.	Senior USAF Representative, US Army Field Artillery School. . . . .	1

~~CONFIDENTIAL~~

TABLE OF CONTENTS

	<u>Page</u>
FOREWORD .....	x
CHAPTER I - BACKGROUND .....	1
CHAPTER II - A NEW SYSTEM DEVELOPED .....	4
CHAPTER III - IN-COUNTRY FRAG PREPARATION .....	10
Current Plans Division .....	10
Strike Plans Branch .....	10
Psychological Warfare Operations .....	19
Gunships .....	22
Bomber Plans Branch .....	23
Summary .....	26
EPILOGUE .....	27
FOOTNOTES	
Chapter I .....	29
Chapter II .....	29
Chapter III .....	30
Epilogue .....	32
APPENDIX I - Headquarters 7AF Fragging Operations .....	33
GLOSSARY .....	45
FIGURES	
	<u>Follows Page</u>
1. (S) MACV JAGOS .....	2
2. (S) Distribution of Maneuver Battalions in SVN .....	4
3. (S) Weekly Allocation of In-Country Forces .....	10
4. (S) Fragmentary Operations Order Planning Data, 24 Jun-1 Jul 69 .....	10
5. (S) In-Country Frag .....	10
6. (C) Percent of Weekly Preplanned TAC Air .....	12
7. (S) Airlift Frag .....	14
8. (C) TASE Action Request; TACPS Frag Action .....	16
9. (S) Army Psyops Units by Corps; USAF Psyops Dets by Corps .....	20
10. (S) USAF AC-47 & C-47 Squadrons; USAF AC-119G Squadron.	22
11. (S) Out-Country Frag .....	24
12. (S) TACPAL, B-52 Post-Strike Summary .....	24

~~CONFIDENTIAL~~

[REDACTED]

FOREWORD

The fragmentary order (Frag) is the last step in the command and control structure which authorizes the execution of an operations order. A large amount of planning, coordinating, and scheduling among numerous staff agencies is necessary to produce a fragmentary order. The frag is the final implementing order in a complex system which culminates when the tactical aircraft actually completes its mission.

The responsibility for fragging all missions, except ARC LIGHT in Southeast Asia, rests with Headquarters, Seventh Air Force, located at Tan Son Nhut Air Base, Vietnam. The overall fragging process comprises five basic operations: fragging of in-country strikes, out-country strikes, ARC LIGHT strikes, combat support missions, and airlift missions. Appendix I, the Headquarters, Seventh Air Force, DOA MEMORANDUM 69-1, 31 May 1969, Subj: Headquarters 7AF Fragging Operations, describes in general terms each of these five functions. Information contained in this Appendix provides important background material for the reader of this CHECO report, which discusses the fragging of in-country strikes. In addition to describing the fragging process as it functioned in June 1969, this CHECO report notes the historical development of in-country fragging by discussing a major change in procedures which occurred in 1968, leading to a significant modification of the in-country frag.

DOJEC  
LTR  
9 FEB  
1970

[REDACTED]

CHAPTER I  
BACKGROUND

A series of Viet Cong successes and massive North Vietnamese intervention in 1964 and early 1965 created an awareness that the war in South Vietnam could be quickly lost, unless there were a rapid buildup of U.S. forces and especially of U.S. airpower. Consequently, in February 1965, a buildup of U.S. troops in Southeast Asia began, and a subsequent expansion of USAF resources and facilities occurred. Quick and responsive tactical airpower became an essential ingredient in the prosecution of the war. In-country air sorties grew from 2,392 in January 1965 to 13,274 in December, all being fraggged on a daily basis.<sup>1/</sup> TDY fighter squadrons became the exception, not the rule by December 1965.<sup>2/</sup> Only a few B-57, F-102, and C-130 units continued to operate on a TDY basis to lighten the pressure on the in-country maintenance facilities. The full spectrum of tactical air support was being provided. The Tactical Air Control System (TACS) managed, until 4 August 1966, the naval carrier based fighters for in-country strikes. They also managed a small number of USMC sorties early in 1966.<sup>3/</sup>

On 15 August 1965, the Air Operations Center (AOC) was redesignated the Tactical Air Control Center (TACC) and the Air Support Operations Centers (ASOC) became Direct Air Support Centers (DASC). The TACS thus became a more manageable system for preplanning airstrikes.<sup>4/</sup>

[REDACTED]

[REDACTED]

In May 1969, in another move aimed at refining the in-country operations, the Army Air Ground System (AAGS) was established and combined with the 7AF TACS to create a true Joint Air/Ground Operations System (JAGOS). A result of this new system was the creation of an Army Tactical Air Support Element (TASE) within the TACC, called the Military Assistance Command, Vietnam, Tactical Air Support Element (MACV TASE), which performed the Army's portion of the joint function. One major purpose of the TASE was to screen and approve all ground commanders' requests for air support. TASE was the highest ground force echelon of the JAGOS. (Fig. 1.)<sup>5/</sup>

As requests were received, MACV TASE established priorities to aid the TACC in preparing its daily frag. In its preparation, top priority was given to troops actually engaging the enemy. Next came air cover and prestrike sorties for units engaged in major ground operations. Air cover for trains, convoys, and other movements was next, with all other operations following. A close working relationship developed between air and ground commanders for the use of tactical airpower.<sup>6/</sup>

Throughout 1966-67, approximately 425 tactical combat sorties were fragged by the TACC each day for in-country operations.<sup>7/</sup> Each frag order contained approximately 24 items of information which required much time and effort to assimilate. A large amount of this preparation work was redundant and repetitive. As will be shown later, much of the information in the frag could have been eliminated. This system, however, was used until March 1968. After that date, a new and innovative

# MACV JAGOS

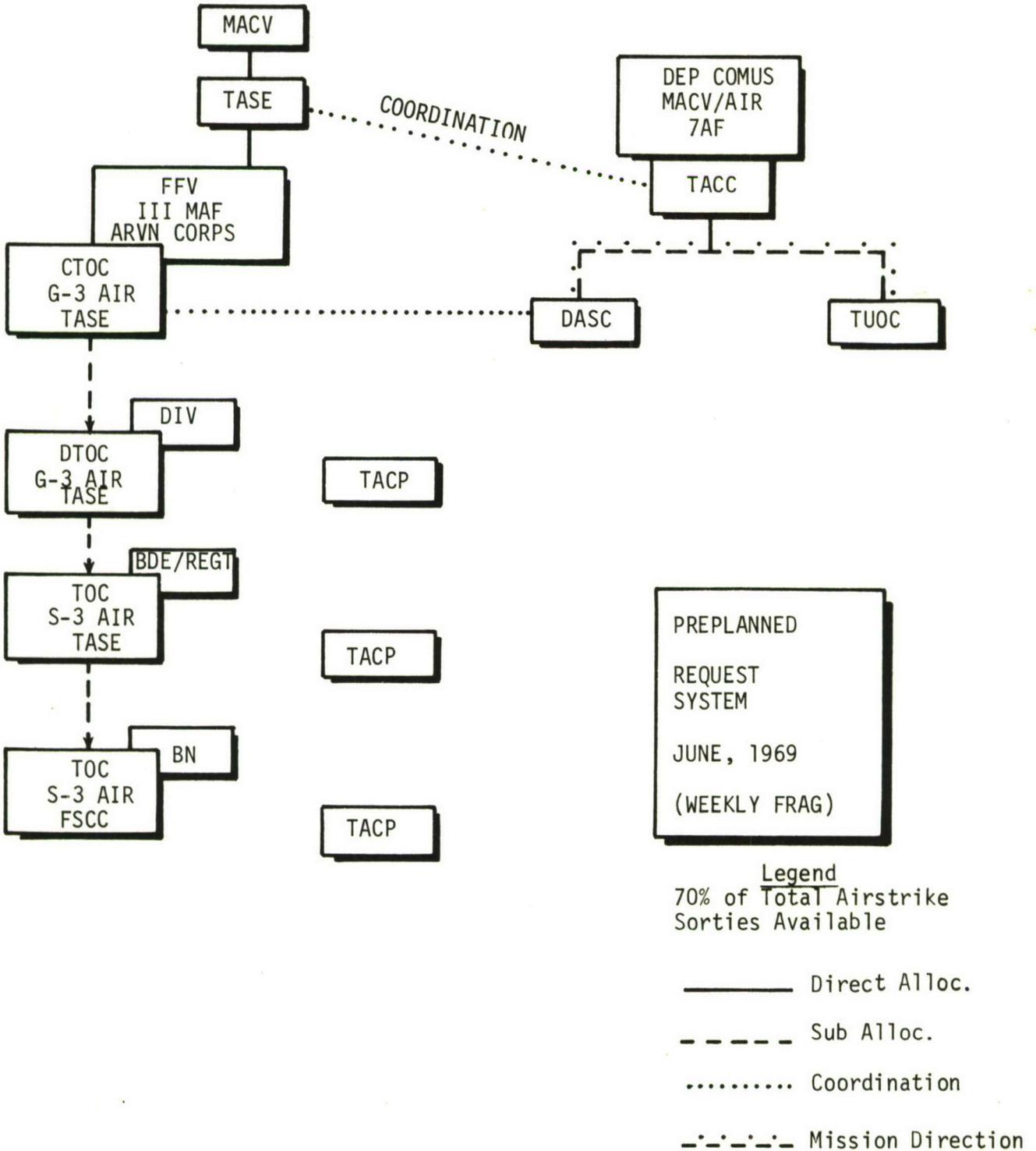


FIGURE I

**SECRET**

system of managing the air war commenced. In May 1968 a unique system of fragging was also introduced which significantly reduced the time and manpower needed to produce the 7AF Frag Order.

**SECRET**

[REDACTED]

CHAPTER II  
A NEW SYSTEM DEVELOPED

In late 1967 and early 1968, the enemy began concentrating his forces in the Demilitarized Zone (DMZ), which indicated that an attack on I Corps was imminent. The objective appeared to be Khe Sanh and other Allied positions along the DMZ. It was estimated that the offensive would begin on 30 January 1968. Hence, the Commander, U.S. Military Assistance Command, Vietnam (COMUSMACV) directed the 7AF Commander to launch Operation NIAGARA. More than 24,000 tactical sorties and 2,500 B-52 strikes were flown from 22 January through 31 March, the operation's inclusive dates.<sup>1/</sup>

This operation, more vividly than any other, illustrated the major defect of the TACS. There was no single manager of air operations in SVN. Units of all services were fighting together in single or continuous engagements, with few geographic limitations to separate them. For example, in December 1967 there were 16 USA, 4 FWMAF, 21 Marine, and 33 ARVN combat maneuver battalions (CMB) in I Corps Tactical Zone (CTZ). By April 1968, this number had increased to 92 CMBs including, 30 USA, 4 FWMAF, 24 Marine, and 34 ARVN.<sup>2/</sup> (Fig. 2.) Likewise, it was impossible to divide airspace according to each service's needs. No one person was responsible for the overall control of air operations. The Marines and the Air Force each independently fragged their own aircraft. The Strike Plans Branch (TACPS) was the major Air Force fragging agency

**SECRET**

DISTRIBUTION OF MANEUVER BATTALIONS IN SVN

AS OF 31 DEC 1967

	<u>USA</u>	<u>FWMAF</u>	<u>MARINE</u>	<u>ARVN</u>	<u>TOTALS</u>
I CTZ	16	4	21	33	74
II CTZ	23	18	--	33	74
III CTZ	37	4	--	50	91
IV CTZ	<u>3</u>	<u>--</u>	<u>--</u>	<u>41</u>	<u>44</u>
TOTALS:	79	26	21	157	283

AS OF 1 APR 1968

I CTZ	30	4	24	34	92
II CTZ	17	18	--	26	61
III CTZ	31	4	--	53	88
IV CTZ	<u>6</u>	<u>--</u>	<u>--</u>	<u>42</u>	<u>48</u>
TOTALS:	84	26	24	155	289

AS OF 4 JUL 1969

I CTZ	25	4	20	36	85
II CTZ	17	18	17	--	52
III CTZ	41	9	--	58	108
IV CTZ	<u>7</u>	<u>--</u>	<u>--</u>	<u>43</u>	<u>50</u>
TOTALS:	90	31	37	137	295

FIGURE 2

**SECRET**

**SECRET**

for planning and coordinating the operation, but there was little coordination between TACPs and the Marines. The uneven flow of aircraft affected sortie flow, caused congestion over the target area, increased the chances for a mid-air collision, and caused numerous aircraft to return to base without expending ordnance. A single manager was needed to be responsible for the overall planning, scheduling, and mission direction of all tactical air in SVN.<sup>3/</sup>

Therefore, COMUSMACV directed the Commander, 7AF, to design a system which would integrate the 1st Marine Air Wing (MAW) into the TACS, but still preserve Marine air/ground integrity as much as possible.<sup>4/</sup> The Marines were strongly opposed to the new idea. The Navy continued to operate independently. However, CINCPAC approved COMUSMACV's proposal and on 8 March 1968, the Single Management System was established. On 10 March, it went into effect, and on 21 March the first consolidated frag was published. A two-year effort to integrate the planning, coordination, and control of air resources under a single agent--the Deputy COMUSMACV (DEPCOMUSMACV) for Air Operations--had been completed.<sup>5/</sup>

To effect the system, a number of alterations and changes were necessary. Marine sorties were added to the published frag and Marine personnel were added to the 7AF TACC. Additional Marine personnel were also added at I DASC (Horn DASC as of 10 August 1968), which became the only DASC with scramble authority. Finally the Marine TACS was integrated into the 7AF TACS.

[REDACTED]

In relation to the new system, the complexity of Navy carrier operations made strikes on a given target by Navy aircraft difficult to coordinate. As a result, Navy aircraft were not fragged by the TACC as were those of the Air Force and Marines. Through prior agreement with TACC, the Navy provided the same number of aircraft each day; they operated only in I and II CTZs. The distance from the carriers precluded use of Navy aircraft in III and IV CTZs. The Navy published a daily aircraft arrival schedule which was transmitted to the TACC. The TACC then sent this schedule to the DASC as part of the daily frag. The DASC was responsible for insuring that a FAC was fragged to meet the Navy aircraft at its arrival time and direct its airstrikes. The Navy aircraft were available only for preplanned targets and were not scrambled for situations such as troops in contact.<sup>6/</sup>

A major study on Single Management was conducted by 7AF on 7 May 1968 to determine its effectiveness.<sup>7/</sup> Several deficiencies were noted in the system, two of which pertained to the procedure of fragging. First, battalion requests were requiring 36 to 50 hours of lead time prior to time over target (TOT). It was noted, however, that ground echelons themselves were imposing this requirement and not the new system. Many of the interdiction missions which were requested actually required that much preplanning time, and no real fragging problem existed. The second problem was serious and did require a change. The frag itself still contained excessive detail and was burdensome and time

[REDACTED]

consuming. The entire frag for in-country sorties was transmitted to all units, and each user had to extract his own portion from the entire list. On a typical day, approximately 245 missions were fragged. On the average, each mission contained 24 items of information. Hence, the entire frag contained approximately 5,880 items of information requiring sorting through by each user.<sup>8/</sup> In addition to these two problems, MACV/7AF JAGOS was not manned and equipped to process the number of requests that were generated daily by the Free World Military Assistance Forces (FWMAF).<sup>9/</sup> A new fragging system was needed.

#### Modified Preplanned Air Support System

The Modified Preplanned Air Support System combined the good qualities of both the Marine and Air Force fragging systems. COMUSMACV directed that modified procedures for fragging preplanned sorties be implemented on 30 May 1968.<sup>10/</sup> Strike sorties available for use on a preplanned basis were now divided into two groups--70 percent of the sorties were to be fragged on a weekly basis through the Weekly Planned Frag, and the remaining 30 percent were to be fragged on a daily basis through the Daily Planned Frag.

Under the old system, an operation needing air support required the ground commander, beginning at battalion level, to submit daily mission requests through channels to MACV TASE. The initial mission request contained the following detailed information: request number; priority; target coordinates; target description; desired time over

[REDACTED]

target; desired results; recommended ordnance; FAC call sign; frequency; rendezvous; and the operation being supported.<sup>11/</sup> At each higher echelon of command, this information was copied and consolidated with requests from other combat maneuver battalions. New priorities were established and all requests were retransmitted to the next higher level of command until they reached MACV TASE. This element established final priorities, and gave the mission requests to TACC for processing and fragging, based upon COMUSMACV's directions.<sup>12/</sup>

Under the new system, the information required for the weekly sortie requests was significantly reduced. The weekly sortie allocations were determined by COMUSMACV based upon such things as: goals in each CTZ; combat maneuver battalions per CTZ; organic firepower; security of friendly forces; security of priority areas; and enemy movements.<sup>13/</sup>

A specific and relatively constant number of strike sorties were allocated weekly to the major ground commanders, i.e., III Marine Amphibious Forces (MAF), I Field Force Vietnam (FFV), II FFV, and the four ARVN CTZs. Each major ground commander could use these sorties in any manner he considered feasible to support various activities, such as landing zone preps, unit operations, and countering enemy offensives. He could also suballocate all or part of the sorties to his subordinate units.<sup>14/</sup> His only limitations were the capabilities of the aircraft and ordnance load.

**SECRET**

The daily sorties were also allocated in accordance with daily priorities established by COMUSMACV. These sorties provided the capability to mass a sizable air effort against lucrative targets without affecting other operations within SVN. These sorties also supported current or planned operations or could be used for interdiction of enemy lines of communication (LOC) and base areas. Furthermore, the amount of information needed for a daily request under the modified plan was greatly reduced. Only the following information was needed: request number; target description or type of mission; desired TOT and time frame within which the strike would be acceptable; number of sorties desired; type of ordnance and operation supported. <sup>15/</sup>

By committing 70 percent of the preplanned sorties to the weekly frag, a stabilizing effect was created. Deadlines, administrative details, and the number of requests were reduced. The production of the daily frag also became a manageable operation. Major ground commanders received a larger commitment of air support, which in essence gave them an airborne alert capability that did not require preplanned targeting. COMUSMACV could regulate and control his air resources as the situation changed. Thus responsiveness was increased, while still maintaining a balance of preplanned sorties.

**SECRET**

[REDACTED]

CHAPTER III  
IN-COUNTRY FRAG PREPARATION

Current Plans Division

The Current Plans Division was one of two major divisions within the Tactical Air Control Center responsible to the Deputy Director of the TACC. Its primary mission was the planning of "tomorrow's" in-country tactical air war, through the production of short-range operational plans. The successful management of this division, especially since August 1968, had enabled subordinate units such as the DASCs to improve their planning operations. Under this division there were three major frag shops: (1) the Strike Plans Branch (TACPS), (2) the Psychological Warfare and Herbicide Branch (TACPSO) and (3) the Bomber Plans Branch (TACPAL). A fourth branch, Weapons Force Plans, was responsible for a wide variety of planning and staff supervisory activities, but had no fragging responsibilities.

Strike Plans Branch

The Strike Plans Branch was the TACC agency which produced the fighter portion of the 7AF Tactical Air Frag Order. This branch, in 1968, fragged more than 165,000 tactical air sorties, including approximately 54,000 USMC sorties.<sup>1/</sup> Its primary guide for frag production was VNAF/7AF OPORD 456-99 (Rev).<sup>2/</sup> This agency issued weekly and daily frag orders (as of 10 June 1969, both frags were issued as a continuous frag on a daily basis),<sup>3/</sup> based upon the requirements and priorities established by COMUSMACV and submitted to TACPS by MACV TASE, MACV's representative in

# WEEKLY ALLOCATION OF IN-COUNTRY FORCES

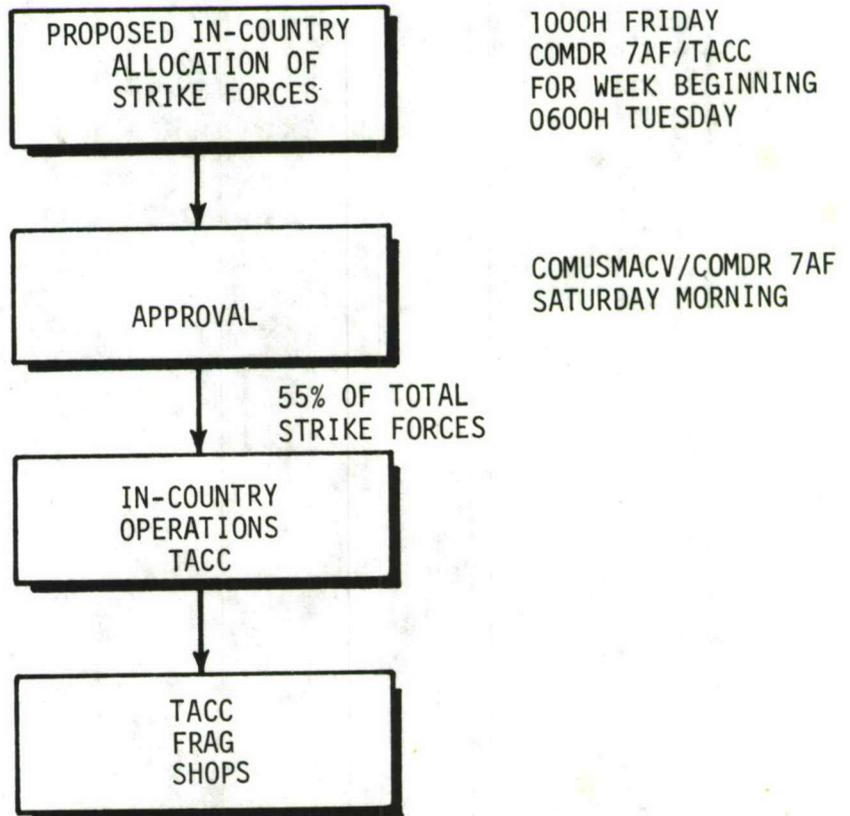


FIGURE 3

**SECRET**

FRAGMENTARY OPERATIONS ORDER  
PLANNING DATA\* 24 JUN - 1 JUL 69

AVAILABLE SORTIES FROM IN-COUNTRY	562
AVAILABLE SORTIES FROM OUT-COUNTRY	<u>231</u>
TOTAL SORTIES AVAILABLE	793
SORTIES to be ALLOCATED to IN-COUNTRY - 55% of 793	437
SORTIES to be ALLOCATED to OUT-COUNTRY - 45% of 793	356

IN-COUNTRY DISTRIBUTION

SORTIES are OVERSCHEDULED by 0%	437
PLANNED SPECIALS (INTERDICTION/ESCORT)	- 40
REMAINING SORTIES	397
40 USAF acft on alert x max. expected sortie rate 2.5	<u>-100</u>
REMAINING SORTIES	297
16 USMC acft on alert x max. expected sortie rate 3.0	<u>- 48</u>
REMAINING SORTIES	249
70% for WEEKLY ALLOCATIONS	174
30% for DAILY ALLOCATIONS	75

\* Each week this type of planning took place.

FIGURE 4

**SECRET**

# IN-COUNTRY FRAG

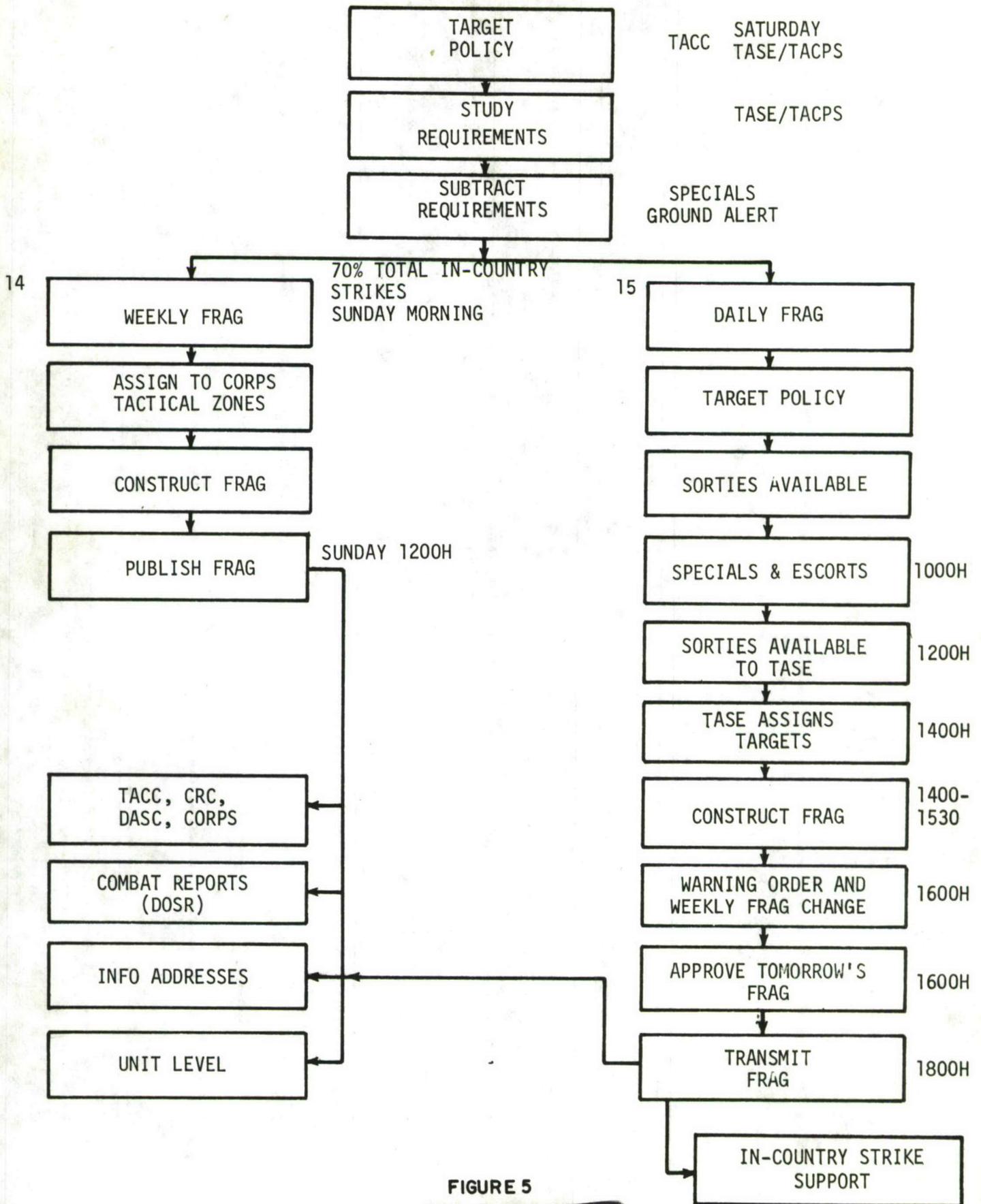


FIGURE 5

~~SECRET~~

the TACC. TACPs fraged USAF/USMC/RAAF tactical air units in SVN for the support of US/RVN/FWMAF ground forces.

The production of the weekly frag commenced on a Thursday morning, when each of the fighter units called TACPS, giving its number of possessed aircraft and its proposed flying schedule for the week. (Prior to April 1969, this was accomplished on a Friday afternoon.)<sup>4/</sup> A meeting was held at 1000H on Friday to propose the allocation of in-country sorties for the week beginning at 0600H the following Tuesday. (Fig. 3.) At this meeting, the 7AF Director of the TACC (TACD), or his representative, briefed the 7AF Commander on the previous week's sortie accomplishments and on the proposed schedule for the following week. To determine how the sorties were computed for various missions, the statistics for the week of 24 June through 1 July 1969 provided a good illustration. These were the actual figures used for planning that week's sorties. During that period, in-country tactical units of 7AF, I MAW, and the Canberras of the RAAF established that they would provide 562 sorties. The out-country aircraft of 7AF, operating from bases in Thailand, estimated they could produce 231 sorties, making a total of 793 sorties.

In accordance with priorities established by COMUSMACV, 55 percent or 437 sorties were planned for in-country operations and the balance of 45 percent or 356 sorties were used for out-country operations. (Prior to 15 October 1968, 65 percent of the sorties were used in-country and 35 percent out-country.)<sup>5/</sup> From the in-country sortie availability figure of 437 were subtracted 40 sorties to be used for high priority

~~SECRET~~

[REDACTED]

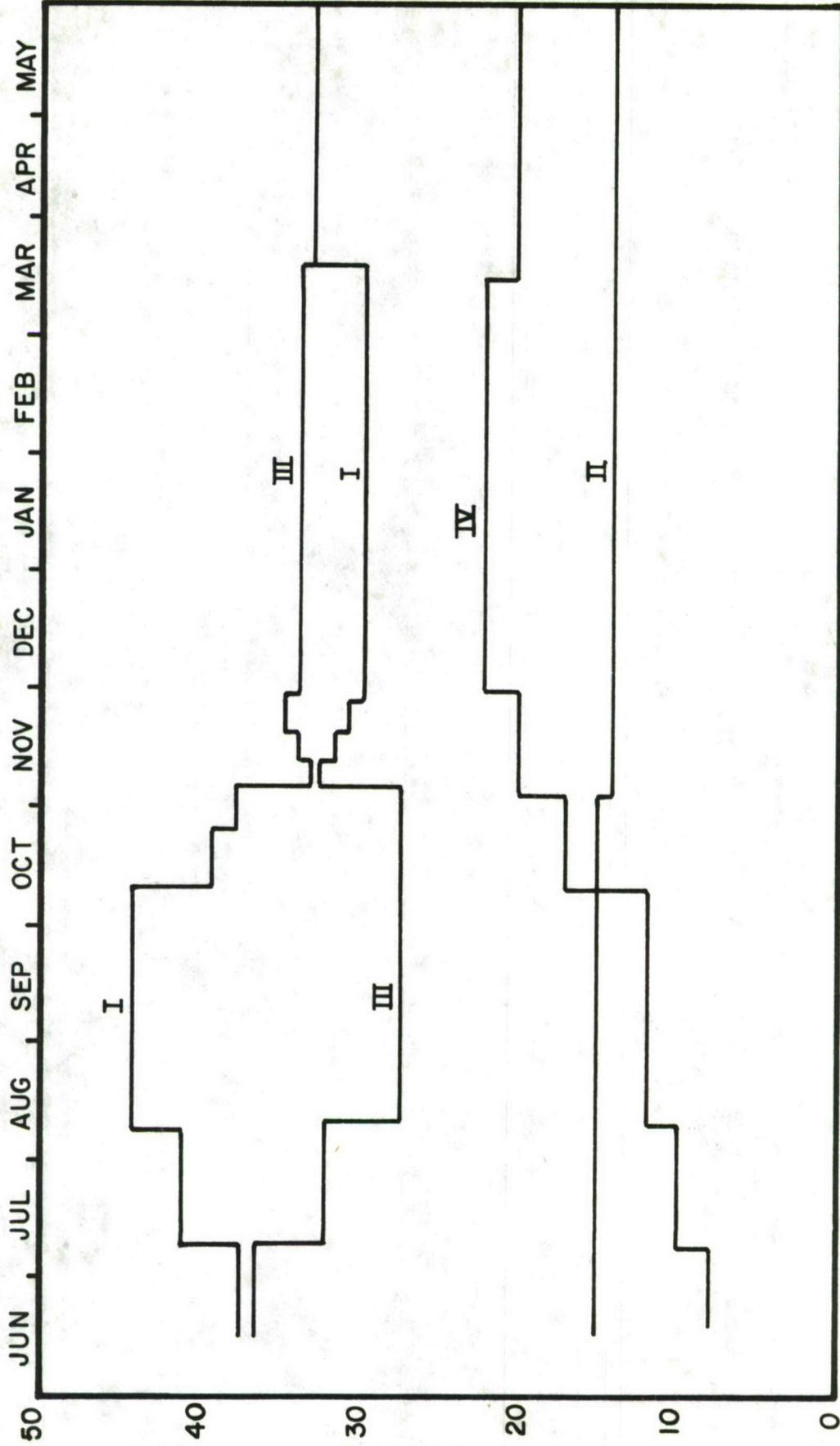
missions. (Prior to 10 June 1969, the remaining figure of 397 would have been increased by four and one-half percent to account for unforeseen ground and air aborts. However, it was determined that this figure was not needed.)<sup>6/</sup> Now the remainder of 397 was reduced by the number of aircraft being used for strip alert or "immediate" sorties. The number of sorties set aside for "immediate" was based upon experience factors and adjusted as conditions changed. At this time, 40 USAF aircraft with an expected sortie rate of 2.5 and 16 USMC aircraft with an expected sortie rate of 3.0 were subtracted from 397, leaving 249 sorties.

The remaining 249 sorties were then available for allocation to the major field commanders in the weekly and daily frag: 70 percent or 174 sorties for the weekly allocation and 30 percent or 75 aircraft for the daily allocation.

On Saturday morning, the 7AF Commander briefed COMUSMACV on the overall effort to be applied to each CTZ for the week. COMUSMACV either approved or made any necessary changes. After COMUSMACV established the priorities, MACV TASE gathered and summarized, by priority, the requests for air support made by major ground commanders for the week. These summary sheets were then submitted to TACPS.

During 1968, a substantial majority of the preplanned weekly sorties had been scheduled in I and III CTZs. (Fig. 6.) Each of those CTZs

# PERCENT OF WEEKLY PREPLANNED TACAIR



33% AIR FOR 14% AIR FOR 33% AIR FOR 20% AIR FOR  
 28% MVR BVN 21% MVR BNS 35% MVR BNS 16% MVR BNS  
 — I CTZ — II CTZ — III CTZ — IV CTZ

FIGURE 6

~~SECRET~~

received 33 percent of the sorties flown. The II CTZ received approximately 14 percent and IV CTZ, 20 percent. However, a majority of the combat maneuver battalions located in SVN were in I and III CTZs.<sup>7/</sup>

(Fig. 2.) These two CTZs also were the locale of numerous large scale enemy offensives such as Khe Sanh in I CTZ and Tay Ninh City in III CTZ. Thus, large amounts of airstrikes were needed for interdiction and close air support.

The weekly frag was published on Sunday morning to be effective from 0601H on Tuesday to 0600H the following Tuesday. As of 10 June 1969, this served merely as a warning order. The frag still was preplanned in the same manner and time period, but it was now published every day interspaced with the weekly frag.<sup>8/</sup> The weekly frag contained: mission number; aircraft call sign; unit; the CTZ; ordnance; and time over initial point (TOIP).

Always included on the weekly frag were six flights scheduled each day for refueling in the Mango track and programmed into IV CTZ. They were preplanned on the weekly frag to give enough leadtime to SAC for tanker scheduling.<sup>9/</sup>

The daily frag was compiled and issued the day before it was to be flown. It was effective from 0601H to 0600H the following day. Special missions, which included herbicide escort, cargo escort, tactical air support, and other specials, were fragged first. Then close air support (CAS) missions were considered. Nevertheless, CAS received approximately 85 percent of the daily sorties.

~~SECRET~~

[REDACTED]

The planning and preparation of the daily frag first required each strike unit to call TACPs with its proposed flying schedule for the next day, including call signs and proposed time over initial point. They also included requests for special missions such as COMBAT SKYSPOT (CSS) and night owl training missions.<sup>10/</sup> The desires of the strike units were usually met when fulfilling TASE requests, but TACPS could slip TOIP  $\pm$  30 minutes without additional coordination.

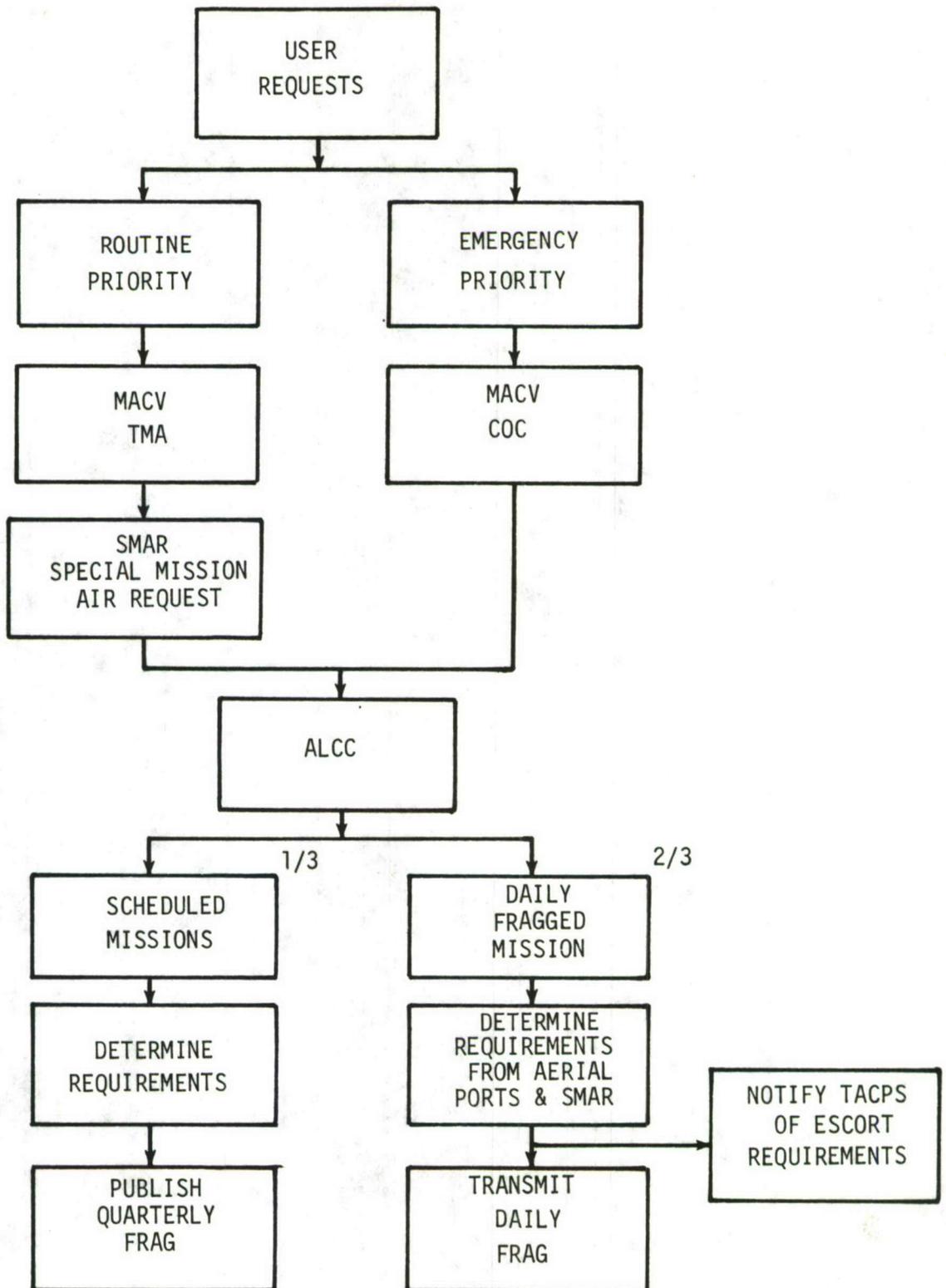
Herbicide escort missions received first priority on the daily frag. The request forms for fighter escort were received from TACPSO each morning, and every attempt was made to fulfill TOT and ordnance requirements as requested.<sup>11/</sup>

Cargo escort missions received priority number two. These requests were infrequent, but were the responsibility of TACPS to coordinate. The Airlift Control Center (ALCC) gave them the call sign, target locations, and TOT encoded. TACPS decoded the information, coordinated with intelligence, and then attempted to fulfill the requests.<sup>12/</sup>

Tactical air support missions received third priority. A meeting was conducted every morning at 1000H, during which a weather and intelligence briefing was given to the interdiction and fragging officers. Based upon this information, it was determined which areas would be best for tactical air support and how many sorties should be allocated.<sup>13/</sup>

If the units requested night owl training sorties, TACPS fragged not only the fighters, but also the flareship from III CTZ at Bien Hoa.

# AIRLIFT FRAG



**FIGURE 7**

[REDACTED]

This flareship had a limited radius of action, so the TASE provided targets within its range.<sup>14/</sup>

After completing these fragging priorities, TACPS now concentrated on fragging the remaining sorties for CAS. MACV TASE provided staff assistance to arrange where and to whom the allocated sorties would go.<sup>15/</sup> These sorties were given to TASE for targeting about 1200H. Each major ground commander contacted TASE with requests for air support. TASE matched these target requests with the total number of sorties available as given them by TACPS. This was usually accomplished by 1400H. The targeting varied from day to day depending upon the needs of the major ground commanders. TACPS attempted to match targets with TOIP, ordnance and aircraft range capabilities. (Fig. 8.) The fragging of TASE requests was usually accomplished by 1530H each day.<sup>16/</sup> At this point, TACPS gave TASE the following information: mission number; unit; call sign; number and type of aircraft; rendezvous coordinates (CRRZ); and TOIP. TASE called the major ground commanders to confirm or deny their request for air support.

TACPS also called each strike unit and DASC to inform them of the next day's sorties.<sup>17/</sup> This warning order was important because it gave the units a chance to plan their next day's activities at a reasonable hour. The actual frag usually took several hours to reach the DASCs and fighter units, because it had to be prepared on a computer, sorted, and then sent out via teletype. Hence, the actual frag confirmed information previously provided to the units.

[REDACTED]

Between 1600-2000H, TASE brought in changes to the frag, such as a request for different ordnance on a certain mission. This information was then called to the wing. It was also recorded on the frag in TACPS indicating the time called and the individuals contacted.<sup>18/</sup>

The percentage of daily sorties being assigned to each CTZ did not always coincide with the percentages assigned to each CTZ on the weekly frag. This was indicative of the fluctuating situations which occurred daily in each CTZ.

Thus the daily frag was oriented toward flexibility. Throughout the cycle of preplanning, change, execution, and the strike, the system was designed to assure effective sortie utilization by the ground commanders. It has proved to be excellent in providing for flexibility both within and among CTZs.

#### Psychological Warfare and Herbicide Plans Branch

The Psychological Warfare and Herbicide Plans Branch had three major functions within the TACC: controlling the use of herbicides; psychological warfare material; and gunships. Each of these operations was fragged by TACPSO.

#### Herbicide Operations

The herbicide program was sponsored by the SVN government and supported by the United States. The heavy vegetation growth within the RVN offered ideal concealment for the enemy. The enemy relied heavily on local food crops to avoid long lines of logistical support. Thus herbicide



[REDACTED]

operations had a dual purpose in SVN: the defoliation of trees and vegetation along known enemy trails and waterways, and the destruction of crops in Viet Cong territory. These operations were conducted with the permission and concurrence of the SVN government.<sup>19/</sup>

A target request may have originated from a province chief, a U.S. field commander, or an ARVN commander. In addition to the SVN government approval, concurrence was also needed from the U.S. Embassy and the Joint General Staff (JGS). The Chemical Operations Division, MACV J3-09, then assigned priorities to approved targets for a one-month period and forwarded this list to the 12th Special Operations Squadron and to 7AF TACPSO.<sup>20/</sup> (Prior to 1 August 1968, the 12th SOS was called the 12th Air Commando Squadron. It was located at Bien Hoa and DaNang and had 25 UC-123 aircraft available for defoliation missions. This decreased to 18 UC-123 aircraft on 1 July 1969). USAF supported this program as directed by MACV Regulation 525-1. TACPSO's guidelines were established by 7AF OPOD 491-69.<sup>21/</sup>

The 12th SOS targeting officer selected primary targets from the MACV J3-09 list and submitted a request work sheet for fragging to TACPSO. TACPSO then prepared warning orders and issued them to ARVN, U.S., and other FWMAF units at least four days prior to target date. Before January 1969, one warning order was issued per CTZ. Between January and July 1969, each Corps received the entire frag. However, each user had to extract his own material and this created additional work. As of 1 August, a single warning order was again to be issued per CTZ, spelling

[REDACTED]

out FAC rendezvous, artillery boxes and target runs for each Corps area. The target time ran from ten minutes before to thirty minutes after TOT. The warning orders were issued to all ground commanders to alert them to the area which was liable to be hit by fighter ordnance. If a target was changed after the warning order was transmitted, it was necessary to notify the appropriate DASCs and other clearing agencies.<sup>22/</sup>

When granting target approval, the ground commander was allowing the fighters either fire-for-fire clearance or suppression clearance, and he agreed to stop artillery fire into the box. (A fire-for-fire clearance meant that the FAC could direct the fighters to return fire-for-fire received from within the artillery box, and that there would be no artillery in the box for the time frame. A heavy suppression clearance meant the FAC could direct fighter prestrike and continuous hot passes within the artillery box, and that there would be no artillery in the box for the time frame.)<sup>23/</sup> If the ground commander granted a suppression clearance, he had to remove his troops or deny the target. UC-123 (RANCH HAND) aircraft normally did not fly on targets without fire-for-fire clearance.

Target clearances were normally called into TACPSO by 1000H on the day before the mission. If a target was disapproved, TACPSO called the 12th SOS for a possible substitute target. This was generally not possible after 1300H. Clearances for substitute targets were usually accomplished by telephone. Disapproved targets were removed from the frag request sheet, so they were not printed on the TRAILDUST frag.<sup>24/</sup>

[REDACTED]

[REDACTED]

After receiving target approval, TACPSO coordinated fighter support with the Strike Plans Branch. Early in 1965, it was determined that the UC-123s were extremely vulnerable to ground fire and needed fighter cover. Since then, 8 aircraft and 17 crewmen had been lost. Other aircraft had taken 3,400 hits since the operation began. Thus herbicide operations receive special attention from TACPS.<sup>25/</sup>

The TRAILDUST frag was issued as soon as all of the target clearance reports had been received, but not later than 1600H on the day prior to the mission.<sup>26/</sup>

TACPSO then monitored the entire mission to assure that spray, fighter, and FAC aircraft all arrived at the target area simultaneously. If the primary target were unworkable because of weather, they diverted to the alternate target. If the alternate target were also unworkable, the mission was cancelled.<sup>27/</sup>

TACPSO also obtained a daily activity report from the 12th SOS which included the following: project number; sorties scheduled; sorties flown; sorties on target; total gallons expended; total time; aborts; ground fire; hits; fighters expended; and the type of target.<sup>28/</sup>

#### Psychological Warfare Operations

The Joint U.S. Public Affairs Office (JUSPAO) was primarily responsible for Psychological Warfare (psywar) in SVN, and the development of guidelines consistent with U.S. SEA policy. The U.S. Military Assistance Command's

**SECRET**

Psychological Operations Directorate, MACV J3-11, in conjunction with JUSPAO, established operational policies and procedures, and coordinated the psywar effort in SVN. The roles of the USAF and VNAF were primarily airborne support of psyops campaigns using loudspeakers and leaflet drops. The in-country operations were directed toward the SVN people, the Viet Cong, and the NVA forces. The USAF became engaged in Psychological Operations in SVN toward the end of 1965 and has continued to play a major role since then. <sup>29/</sup>

The Army's 4th Psychological Operations Group handled the in-country printing of leaflets and the production of loudspeaker tapes. It had a battalion located in each CTZ under the command of the Corp Commander, (Fig. 9.) All requests for psywar support went through the psyops battalion, which in turn selected target priorities and requested support from an adjacent USAF psywar squadron. <sup>30/</sup>

All in-country USAF Psyops missions were flown by units of the 14th Special Operations Wing (SOW). The psywar detachments under the 14th SOW were collocated with the Army Psyops Battalions. Both the 9th SOS and 5th SOS, subordinate units of the 14th SOW, had their headquarters at Nha Trang, adjacent to the 14th SOW headquarters. <sup>31/</sup>

TACPSO issued a daily frag for the execution of psywar missions requested by the U.S. Army Psyops Battalions or as directed by MACV. The frag covered the four CTZs of SVN, but each CTZ was fragged uniquely. (Fig. 9.)

~~SECRET~~

ARMY PSYOPS UNITS BY CORPS

<u>UNIT</u>	<u>CORPS</u>	<u>LOCATION</u>
7th PSYOPS BATTALION	I	DANANG
B COMPANY, 8th PSYOPS BATTALION	II	PLEIKU
8th PSYOPS BATTALION	II	NHA TRANG
6th PSYOPS BATTALION	III	BIEN HOA
10th PSYOPS BATTALION	IV	CAN THO

USAF PSYOPS DETACHMENTS BY CORPS

<u>UNIT</u>	<u>CORPS</u>	<u>LOCATION</u>	<u>AIRCRAFT</u>
9th SOS, F1t A	I	DANANG	O-2B, C-47
9th SOS, F1t B	II	PLEIKU	O-2B, C-47
9th SOS, F1t C	II	NHA TRANG	O-2B, C-47
5th SOS, F1t B	III	BIEN HOA	U-10, C-47
5th SOS, F1t C	IV	BINH THUY	U-10, C-47

FIGURE 9

~~SECRET~~

[REDACTED]

I CTZ submitted a weekly schedule to TACPSO which rarely changed. If there were a change, it was submitted to TACPSO the day prior to the mission.

The II CTZ's frag varied significantly for the two psywar squadrons located in that Corps. The schedule for each flight was called in daily by an Army representative of the 8th Psyops Battalion at each unit. Included in the request were the following: number of sorties requested; call signs; briefing times; and requesters. <sup>32/</sup>

The III CTZ normally submitted a weekly schedule. Daily calls were made to TACPSO by the 6th Psyops Battalion giving any additions to the preplanned weekly schedule.

The IV CTZ's frag was a continuous one. The missions varied daily, but each day's schedule was static in the ensuing week, i.e., Monday's missions were normally the same each week. Only if there were telephoned changes would the frag differ.

I and III CTZs' frag contained only clearance for takeoffs, but included no information on target coordinates. This information was provided by the battalions directly to the squadrons. <sup>33/</sup>

The psywar frag also contained information on the daily insecticide missions. The aerial dispersal of insecticides in SVN was outlined in MACV Directive 40-10. The MACV Command Surgeon's Office was responsible for the program. The schedule provided by the 20th Preventative Medicine Unit specified a primary target for each day. However, the schedule was

~~SECRET~~

only a guide and changes did occur. TACPSO issued a daily frag based upon the results of the previous day's sortie. Included in the frag were the following: units; call sign; date; time; mission number; primary and alternate target; herbicide; and type of aircraft. <sup>34/</sup>

Gunships

This branch also fragged, monitored, and controlled all AC-47 Gunships (Spooky) and C-47 Flareships (Moonshine). The units were all a part of the 14th Special Operations Wing. (Fig. 10.) The 5th SOS and 9th SOS Moonshine C-47s were also psywar aircraft and performed a dual role. The flaeship had a higher priority than psywar missions. <sup>35/</sup>

The mission of the AC-47s was to respond with firepower and flare illumination in support of ground forces under attack in outposts, Special Forces Camps, and hamlets. <sup>36/</sup> Because of its slow speed and restricted operating altitudes, the AC-47 was highly vulnerable to hostile ground fire. Hence, the system was employed during the hours of darkness. Combat Air Patrols were flown over major military installations but could be diverted to specific targets upon request. <sup>37/</sup>

The Gunship/Flaeship alert frag was published periodically, but not on a daily basis. The alert frag was sent to all units and included the following: location of all AC-47 aircraft in the four CTZs; call signs of each aircraft; the alert being performed, i.e., airborne alert (AA) or ground alert (GA); and the time of alert. <sup>38/</sup>

Generally, each location had two or three Spooky aircraft listed on

~~SECRET~~

**SECRET**

USAF AC-47 & C-47 SQUADRONS

<u>3d SOS - Spooky AC-47</u>	<u>CORPS</u>
F1t A - NHA TRANG	II
F1t C - BIEN HOA	III
<u>4th SOS - Spooky AC-47</u>	
F1t A - DA NANG	I
F1t B - PLEIKU	II
F1t C - PHU CAT	II
F1t D - NHA TRANG	II
<u>5th SOS - Moonshine C-47</u>	
F1t A - NHA TRANG	II
F1t D - BIEN HOA	III
<u>9th SOS - Moonshine C-47</u>	
F1t B - PLEIKU	II

USAF AC-119G SQUADRON

<u>17th SOS - Shadow AC-119G</u>	
F1t A - NHA TRANG	II
F1t B - PHAN RANG	II
F1t C - TAN SON NHUT	III

FIGURE 10

**SECRET**

[REDACTED]

the frag. One of the aircraft was fragged for half the night, and the other aircraft for the remainder of the night. The third aircraft was fragged for ground alert as a backup.<sup>39/</sup>

A small number of Moonshine aircraft were included on the frag on a ground alert posture. The Moonshine aircraft were scheduled for a minimum of airborne alert.<sup>40/</sup>

The Gunship/Flaeship alert frag was dynamic and easily adjustable to changing threat situations. The frag could be modified by publishing a revision showing only the items changed. Close coordination was required between the 14th SOW and TACPSO. If a requirement were levied on TACPSO for a change, this was passed to the 14th SOW for coordination. The 14th SOW then proposed a new mission and if TACPSO approved, it was fragged.<sup>41/</sup>

A daily summary of all Spooky activity was maintained to help plan future missions and frags.

TACPSO also fragged the AC-119G gunships in the same manner as the AC-47s. They were used at night and were fragged periodically on an airborne/ground alert basis. They were primarily used for armed reconnaissance missions.<sup>42/</sup> These aircraft played an ever-increasing role in the gunship operations in SVN, especially in 1969.<sup>43/</sup>

#### Bomber Plans Branch

The mission of the Bomber Plans Branch was to coordinate B-52

[REDACTED]

activities among 7AF units and the other Free World military and civilian agencies which supported B-52 operations in Southeast Asia. This agency operated on a 24-hour basis, and was the primary coordinating agency within the TACC between SAC and 7AF.

The targets were requested primarily by ground commanders from the four CTZs and the I and II FFVs or were nominated by the 7AF Commander. For all targets in South Vietnam, COMUSMACV was the approving authority for ARC LIGHT missions. (In 1965, it was necessary to get JCS and White House staff approval.)<sup>44/</sup>

After receiving the approved targets from COMUSMACV, SAC ADVON, which represented SAC in the TACC, forwarded the request for strikes to 3d Air Division, Andersen AFB, Guam. At the same time, it sent to TACPAL a target work sheet which contained target coordinates and time over target. This warning sheet was normally submitted 18 hours prior to TOT.<sup>45/</sup>

Based upon the TOT and grid coordinates, TACPAL issued an advisory message to all USAF flying units to warn of the ensuing ARC LIGHT mission. In addition, it began coordinating with DOCRE, DOCRI, and DOCA for supplemental support which might be needed to assist the B-52 strike, i.e., WILD WEASEL SAM suppression and EB-66 electronic countermeasures. DOC, the out-country managing agency, fragged these supporting units. It also notified MACV J-2 and other interested 7AF agencies such as TACPS and TACT.<sup>46/</sup>

# OUT-COUNTRY FRAG

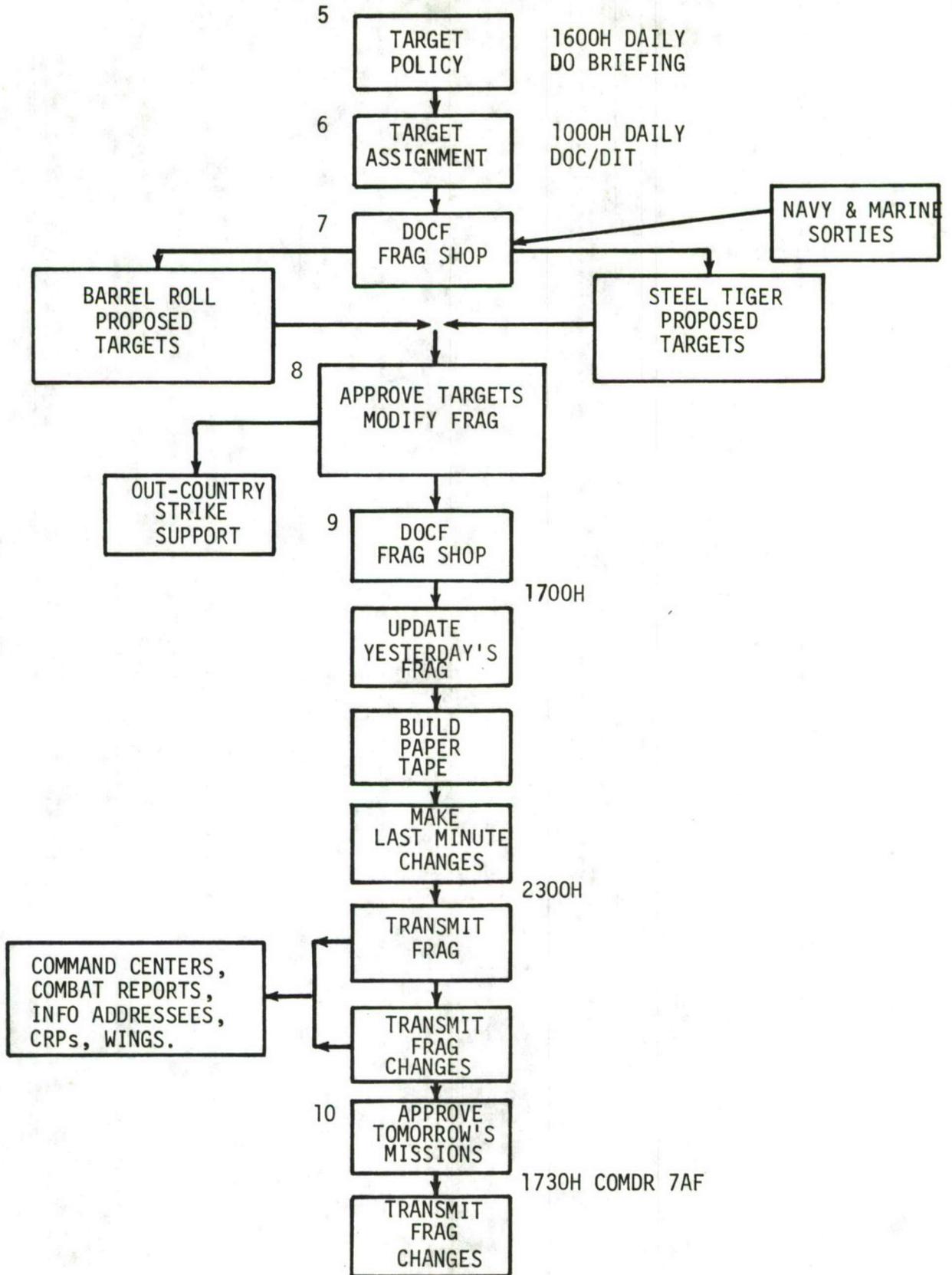


FIGURE II

TACPAL

B-52 Post-Strike Summary

<u>NICKNAME</u>	<u>DATE</u>	<u>ACFT</u>	<u>CORP</u>	<u>ORD</u>	<u>TON</u>	<u>ACCUM TON</u>	<u>TARGET</u>
1520 E-700	25 Jun	6	II	HE	131	35102	YB843194
1810 E-573	26 Jun	6	I	HE	163	35265	YT347949
2035 E-787	26 Jun	6	III	HE	131	35396	XT408690
2240 E-740	26 Jun	6	II	HE	163	35559	YB878214
0115 E-627	26 Jun	6	I	HE	131	35690	AS925975
0320 E-644	26 Jun	6	I	HE	163	35853	AS925955
0615 E-744C	26 Jun	6	I	HE	131	35984	YB898212
0825 E-677	26 Jun	6	III	HE	163	36147	XT228794
1025 E-718	26 Jun	6	II	HE	131	36278	YB859201
1300 E-768	26 Jun	6	I	HE	163	36441	BS394816
1510 E-704	26 Jun	6	I	HE	131	36582	BS411807
1805 E-711C	27 Jun	6	II	HE	163	36735	YB852231
2025 E-755	27 Jun	6	III	HE	131	26866	XT414663
2245 E-758	27 Jun	6	III	HE	163	37029	XT376711
0120 E-773	27 Jun	2	III	HE	54	37181	XT370885
0325 E-728	27 Jun	2	II	HE	44	37127	YB828276
0620 E-777	27 Jun	2	III	HE	54	37181	XT198838
0830 E-732	27 Jun	2	XXIV	HE	44	37225	YD239150
1030 E-792	27 Jun	2	LAOS	HE	44	37269	XD891021
1305 E-769	27 Jun	2	LAOS	HE	44	37313	XD515685
1515 E-734	27 Jun	2	LAOS	HE	44	37357	XD630676
1800 E-723	28 Jun	6	II	HE	163	37520	YB766195
1825 E-765	28 Jun	6	II	HE	131	37651	YB781218
1850 E-784	28 Jun	6	II	HE	163	37814	YB976188
1915 E-715	28 Jun	6	II	HE	131	37945	YB771218
1940 E-736	28 Jun	6	II	HE	163	38103	YB786188
2005 E-788	28 Jun	6	II	HE	131	38239	YB761215
2030 E-749	28 Jun	6	II	HE	163	38402	YB796188

FIGURE 12

[REDACTED]

After receiving the final 3d AD frag, TACPAL then developed its own frag which was directive in nature. It was issued to all 7AF units essential to the ARC LIGHT mission. These units included the appropriate DASCs, MSQ-77 sites, SAR, and CRCs. Each unit received the following information: mission nickname; mission number; aircraft call sign; cell colors; GCI control; entry route; withdrawal route; target coordinates; and TOT. (Fig. 12.)

In addition, TACPAL extracted from the 3d AD frag order, the altitude at which the B-52 strike would be operating or was vulnerable for operations in three areas: (1) the entry tunnel; (2) the in-country block and (3) the exit route. It computed the altitude requirements needed for each phase of the mission, and then requested the necessary altitude reservations from Southeast Asia Military Air Reserve Facility. <sup>47/</sup>

TACPAL also sent to the Saigon Area Control Center an unclassified letter, to be delivered three hours prior to VADIZ entry asking for additional airspace. This was done on a daily basis whether or not a strike was scheduled. Prior to June 1968, this airspace was only requested when a strike was scheduled. However, the new procedure improved the secrecy of the missions. <sup>48/</sup>

Having prepared a "mission monitor package" for the TACC which covered all vital information about the strike a member of the TACPAL and SAC ADVON was present in the TACC as a procedural advisor, or was

[REDACTED]

in telephone contact with the TACC monitors. After the B-52s arrived in-country, they could be diverted from their original target to their secondary target by a "withhold" order from the TACC. They would overfly the primary target and then drop on the secondary target. However, if there were a large MIG or SAM threat, the 7AF Commander or his representative could completely divert a strike, but could not select a new target.<sup>49/</sup>

Finally TACPAL composed a post-strike summary consisting of the following: mission number; number of aircraft; corps type of ordnance; tonnage dropped; accumulated tonnage; and target coordinates. (Fig. 2.) These were compiled and used for analysis by Seventh Air Force.

#### Summary

The process of fragging, in itself, was a complicated and time-consuming operation which required meticulous care in the planning and coordination of each sortie. The Plans Division accomplished a remarkable job of simplifying the production of the frag. The Strike Plans Branch made noteworthy contributions to the improvement of fragging procedures. From the tedious method of fragging every sortie every day, to the much improved system of the weekly/daily frag, to the still more sophisticated continuous weekly/daily frag, progress was realized. Plans were also being made to install a new computerized system of fragging in the Strike Plans Branch to further streamline the operation.

**[REDACTED]**

## EPILOGUE

Project SEEK DATA II is a new computerized system which has as one of its goals, the simplification of preparing and disseminating the in-country frag order. To accomplish this task, information required to produce a strike frag will be fed into the IBM 360/50 computer located in DOS. Subsidiary information will then be selectively given to the strike planners via a smaller computer system, the IBM 1130, to be located in the Strike Plans Branch Office.<sup>1/</sup>

When the system becomes fully operational, it will provide TACPS with an automated capability to fulfill the following functions:<sup>2/</sup>

- Match an Army request for a given type ordnance, at a given target location, within specified time parameters, with sorties and ordnance available from bases within range of the target.
- Compute tanker and fuel requirements where applicable.
- Monitor ordnance usage.
- Provide ETD and ETA, based on target range, estimated time in target area, etc.
- Electronically sort missions by time, wing, DASC, etc.
- Maintain complete mission records.
- Communicate directly with tactical wings via PIACCS circuitry.
- Edit frag for planning inconsistencies.
- Print and sort hard copies for strike planners use.
- Transmit the approved frag via one of several methods, including a tape punch system transmitted via PAFCO/AUTODIN when PIACCS is not available.

- 
- Administrative functions normally accomplished by TACPS personnel.

To provide a smooth transition from the current manual frag order to the fully automated system will require approximately four months. Including delivery, installation, and the training necessary to make the system useful, it should be completely operational by 15 October 1969.<sup>3/</sup>

Although use of the equipment within the Tactical Air Control Center appears primarily designed for use by the Strike Plans Branch, other fragging branches should also consider its use.

# UNCLASSIFIED

## FOOTNOTES

### CHAPTER I

1. (TS/NF) CHECO Rprt, Hq PACAF, DOTEK, "Control of Air Strikes in SEA, 1961-66", 1 Mar 67, pg 29. (Hereafter cited: "Control of Air Strikes in SEA".) (All extracts from this report are classified no higher than SECRET.)
2. (S) Hist Rprt, 7AF, 1 Jan 66-30 Jun 67.
3. Ibid.
4. Ibid.
5. Ibid.
6. (TS/NF) "Control of Air Strikes in SEA".
7. Ibid.;  
Microfilm Cartridge, TACWFP, Nr 111, "In-Country Weekly Summaries of Air Operations", Jan-Dec 67.

### CHAPTER II

1. (S) CHECO Rprt, Hq PACAF, DOTEK, "Khe Sanh (Operation NIAGARA)", 13 Sep 68, pg 1. (Hereafter cited: "Khe Sanh".)
2. (S) Memo, "Distribution of Maneuver Bns in SVN", undated, Doc. 1.
3. (S) "Khe Sanh".
4. (S) CHECO Rprt, Hq PACAF, DOTEK, "Single Management for Air in SVN", 18 Mar 69, pg 7. (Hereafter cited: "Single Management for Air".)
5. (S) Ibid, pg 8;  
CHECO Rprt, Hq PACAF, DOTEK, "Single Management for Air in SVN", 1 Jul 68.
6. (S) Msg, Horn DASC to COMUSMACV, "Status of Horn DASC", 10/1725Z Aug 68;  
(S) Msg, 7AF to CINCPACAF/DOTEK, subj: Navy Air in the TACC Fragging Process, 291110Z Oct 69.

# UNCLASSIFIED

7. (S/NF) Study, TACD, Lt Col John Stoer, "Single Management", 8 Jan 69. (Hereafter cited: Lt Colonel Stoer's Study.)
8. (S) Memo, Hq 7AF, "Change in Preplanned Frag Content," undated, Doc. 2. (Hereafter cited: Memo, "Change in Frag".)
9. (S) Lt Colonel Stoer's Study.
10. (S) Msg, COMUSMACV to Comdr, 7AF, subj: "Modified Preplanned Air Support System (U)", 211145Z May 68. Doc. 3. (Hereafter cited: Msg, COMUSMACV, 211145Z May 68.)
11. (S) Memo, "Change in Frag".
12. (S) CHECO Rprt, Hq PACAF, DOTEK, "7AF TACS", 15 Oct 68, pg 14.
13. Ibid, pg 15.
14. (S) Msg, COMUSMACV, 211145Z May 68.
15. Ibid.

## CHAPTER III

1. (U) Hist Rprt, Strike Plans Branch, 6 Jan 69. Doc. 3.
2. (S) VNAF/7AF JOINT OPORD 456-69 (Rev), "Tactical Air Operations in the Republic of Vietnam", 15 Nov 68. Doc. 4.
3. (U) Interview with Maj H. C. Pitts, TACPS, 21 Jun 69. (Hereafter cited: Interview with Maj H. C. Pitts.)
4. Ibid.
5. (U) Interview with Lt Col C. A. Pritchett, Chief, MACV TASE, 13 Jun 69. (Hereafter cited: Interview with Lt Col Pritchett.)
6. (U) Interview with Lt Col Andrew L. Patten, Chief, Strike Plans Branch, 18 Jun 69. (Hereafter cited: Interview with Lt Colonel Patten.)
7. (U) Interview with Maj M. P. Sherzer, Operations Officer, MACV TASE, 14 Jun 69.
8. (U) Interview with Capts Phil Lazier and John Livesay, TACPS, 10 Jun 69. (Hereafter cited: Interview with Captains Lazier and Livesay.)

- [REDACTED]
9. (U) Memo, "Weekly Frag Procedures", undated, Doc. 6.
  10. (S) Memo, "Daily Frag Procedures", undated, Docs. 7, 8.
  11. Ibid.
  12. Ibid.
  13. Ibid.
  14. (U) Interview with Captains Lazier and Livesay.
  15. (S) Memo, "Major Responsibilities of TASE", undated, Doc. 9.
  16. (S) Memo, "Daily Frag Procedures", undated, Doc. 8.
  17. (U) Interview with Captains Lazier and Livesay.
  18. (S) Memo, "Daily Frag Procedures", undated, Doc. 8.
  19. (S/NF) CHECO Rprt, Hq PACAF, DOTEK, "Herbicide Operations in SEA, July 1961 - June 1967", 11 Oct 67.
  20. (S) Memo, "Herbicide Operations" 31 May 69. Doc. 10.
  21. (U) Interview with Capt Erick Gruenler, TACPSO, 24 Jun 69.  
(Hereafter cited: Interview with Captain Gruenler.)
  22. (S) Memo, "Herbicide Operations", 31 May 69. Doc. 10.
  23. (U) Interview with Captain Gruenler.
  24. Ibid.
  25. (U) Interview with Lt Col R. W. Wilson, Chief, TACPSO, 24 Jun 69.  
(Hereafter cited: Interview with Lt Colonel Wilson.)
  26. Ibid.
  27. (S) Memo, "Herbicide Operations", undated, Doc. 10.
  28. Ibid.
  29. (S) CHECO Rprt, Hq PACAF, DOTEK, "Psychological Operations by USAF/VNAF in SVN", 16 Sep 68.
  30. Memo, "Psywar Duties", undated, Doc. 11.
  31. Ibid.

- [REDACTED]
32. Ibid.
  33. (U) Interview with Capt William Ritchie, TACPSO, 24 Jun 69.
  34. (S) Memo, "Insecticide Procedures", undated, Doc. 12.
  35. (S) Memo, "Spooky Frag", undated, Doc. 13.
  36. (U) Interview with Lt Colonel Wilson.
  37. (S) Memo, "AC-47 Brief", 22 Apr 69, Doc. 14.
  38. (S) Memo, "Spooky Frag", undated, Doc. 13.
  39. Ibid.
  40. Ibid.
  41. Ibid.
  42. (S) Memo, "AC-119G Brief", undated, Doc. 15.
  43. (U) Interview with Maj B. R. Knapic, TACPSO, 25 Jun 69.
  44. (TS) CHECO Rprt, Hq PACAF, DUTEC, "ARC LIGHT - B-52 Strikes, Jan Dec 65", 19 Oct 66. (Extract is SECRET.)
  45. (U) Interview with Lt Col P. A. Lynch, Chief, TACPAL, 21 Jun 69. (Hereafter cited: Interview with Lt Colonel Lynch.)
  46. (S) Memo, "Tactical Air Control Center - Bomber Plans Branch", 22 May 68, Doc. 16.
  47. Ibid.
  48. Ibid.
  49. (U) Interview with Lt Colonel Lynch.

#### Epilogue

1. (U) Ltr, Lt Col Andrew L. Patten, Chief, TACPS to 7AF, Dir, TACC, subj: "Report of Trip to Control Data Corporation, Honolulu, Hawaii, 12-19 May 1969", pg 2. Doc. 17.
2. Ibid, pg 3.
3. Ibid, pg 5.

# UNCLASSIFIED

## GLOSSARY

AA	Airborne Alert
AAA	Antiaircraft Artillery
AAGS	Army Air Ground System
AD	Air Division
ADVON	Advance Echelon
ALCC	Airlift Control Center
AOC	Air Operations Center
ARRG	Aerospace Rescue and Recovery Group
ARVN	Army of Republic of Vietnam
ASOC	Air Support Operations Center
AUTOVON	Automatic Digital Network
CAP	Combat Air Patrol
CAS	Close Air Support
CINCPAC	Commander-in-Chief, Pacific Command
CMB	Combat Maneuver Battalions
COC	Combat Operations Center
COMUSMACV	Commander, U.S. Military Assistance Command, Vietnam
CRC	Control and Reporting Center
CSS	COMBAT SKYSPOT
CTF	Carrier Task Force
CTZ	Corps Tactical Zone
DASC	Direct Air Support Center
DEPCOMUSMACV	Deputy Commander, U.S. Military Assistance Command, Vietnam
ECM	Electronic Countermeasure
FFV	Field Force Vietnam
Frag	Fragmentary Order
FWMFAF	Free World Military Assistance Forces
GA	Ground Alert
GCI	Ground-Controlled Intercept
GP	General Purpose
JAGOS	Joint Air/Ground Operations System
JCS	Joint Chiefs of Staff
JGS	Joint General Staff
JUSPAO	Joint U.S. Public Affairs Office

# UNCLASSIFIED

MACV TASE	Military Assistance Command, Vietnam, Tactical Air Support Element
MAF	Marine Amphibious Force
MAW	Marine Air Wing
OPORD	Operations Order
PAFCO	Pacific Air Forces Communications Office
PIACCS	Pacific Automated Command & Control System
Psyops	Psychological Operations
Psywar	Psychological Warfare
RAAF	Royal Australian Air Force
Recon	Reconnaissance
Rev	Revised
RVN	Republic of Vietnam
SAC	Strategic Air Command
SAM	Surface-to-Air Missile
SAR	Search and Rescue
SEA	Southeast Asia
SMAR	Special Mission Air Request
SOS	Special Operations Squadron
SOW	Special Operations Wing
SVN	South Vietnamese
TAC	Tactical Air Command
TACC	Tactical Air Control Center
TACD	Director of the TACC
TACPAL	Bomber Plans Branch
TACPS	Strike Plans Branch
TACPSO	Psychological and Herbicide Branch
TACS	Tactical Air Control System
TASE	Tactical Air Support Element
TDY	Temporary Duty
TMA	Traffic Management Agency
TOIP	Time Over Initial Point
TOT	Time Over Target
USA	U.S. Army
USMC	U.S. Marine Corps
VADIZ	Vietnamese Air Defense Identification Zone
VNAF	Vietnamese Air Force